

Approved by:

ENERGY REGULATORY COMMISSION OF THE REPUBLIC OF ARMENIA

RESOLUTION No. 10

Dated: February 22, 2002

STRUCTURE AND FUNCTIONS OF THE MANDATORY UNITED POWER  
MARKET IN ARMENIA

1. General Provisions

- 1.1. The Armenian mandatory united wholesale power market (hereafter referred to as the United Power Market or the UPM) is established pursuant to the RoA Energy Law and the legal acts adopted by the Energy Regulatory Commission of Armenia (hereafter referred to as the ERC), following the execution of a Foundation Contract by the market members, and its registration with the ERC.
- 1.2. The following licensed entities, the market members shall act as the Parties to the Foundation Contract of the UPM:
  - a) “Hrazdan Thermal Power Plant” Closed Joint Stock Company;
  - b) “Yerevan Thermal Power Plant” Closed Joint Stock Company;
  - c) “Armenian Nuclear Power Plant” Closed Joint Stock Company;
  - d) “Vorotan Hydro Power Plant Cascade” Closed Joint Stock Company;
  - e) “Sevan-Hrazdan Hydro Power Plant Cascade” Closed Joint Stock Company;
  - f) “Dzora Hydro Power Plant” Closed Joint Stock Company;
  - g) Other licensed generators of electric energy;
  - h) “High Voltage Electric Networks” Closed Joint Stock Company;
  - i) “Armenian Electric Networks” Closed Joint Stock Company.
- 1.3. Procedures for the membership of the new UPM members shall be determined by the Market Rules and the Operation Licenses of such new members.
- 1.4. The UPM shall act as a unified electric power market where all the generators and importers sell all electricity, and the buyers (including exporters) purchase electricity at tariffs established by the Energy Regulatory Commission of the Republic of Armenia and in procedures established by the UPM Rules. The HV Networks and the licensed Service Providers cannot act as purchasers and/or vendors of electric energy (capacity).
- 1.5. The relationships between the market members, the service providers, the importers and the exporters shall be regulated by the terms and conditions of the mandatory model contracts approved by the ERC.
- 1.6. The ERC shall establish the procedures and responsible parties for submission of reports and information on the UPM operation.

- 1.7. The centralized services, aimed at the regulation of the operation of the electric energy market and guaranteeing its transparency, that shall be rendered to the UPM and shall be subject to licensing are as follows:
- a) System Operator services;
  - b) Billing and settlement services (hereafter referred to as “Settlement Services”);
  - c) Contracting services;
  - d) Funds Administration services for the UPM financial flows.
- 1.8. At the initial phase of the UPM operation, the System Operator services, the Settlement services and the Contracting services shall be carried out by one organization (legal entity), which is “Armenergo” Closed Joint Stock Company and which shall have three relatively independent functional divisions (the Settlement Center, the Contracting Center and the System Operator). Alongside with the financial rehabilitation of the energy sector companies and, particularly, the debt restructuring and repayment by Armenergo, in availability of satisfactory conditions, the above services may be carried out by separated organizations.
- 1.9. The Funds Administration services for the UPM financial flows shall be carried out by a commercial bank, selected by the Energy Regulatory Commission in established procedures, that renders funds administration services.
- 1.10. The power market rules, the scope and methods of regulation shall gradually change in parallel with the formation of the market structures and the legal framework for their functioning, along with the development of the technical system of electricity metering and formation of the balancing market.
- 1.11. Alongside with the preliminary arrangements for the implementation of the market, the authorized state bodies of the Republic of Armenia will develop and adopt a program of financial rehabilitation of the energy sector companies. From the moment of implementation of the market, the management of past liabilities and the current financial flows shall be carried out separately.

## 2. Regulation of the UPM Operation

- 2.1. On the Armenian wholesale domestic market the purchase and sale of electricity shall be carried out on the basis of the UPM Foundation Contract (hereafter referred to as the “UPM Contract”).
- 2.2. The quantity indicators of electricity purchase and sale on domestic market for the settlement period shall be established by the Appendices of the UPM Contract between the UPM members and the licensed entity providing contracting services.

- 2.3. The relationships of the market members with the entity (organization) holding a System Operator License shall be regulated by the Contract of System Operator Services to the market, the model form (mandatory provisions) of which shall be established by the ERC, and their licenses.
- 2.4. The relationships of the market members with the entity (organization) holding a Settlement Services License shall be regulated by the Contract of Settlement Services to the market, the model form (mandatory provisions) of which shall be established by the ERC, and their licenses.
- 2.5. The relationships of the market members with the entity (organization) holding a Contracting Services License shall be regulated by the Joint Contract of Contracting Services to the market, the model terms of which shall be established by the ERC, and their licenses.
- 2.6. The relationships of the market members with the licensed entity holding a Funds Administration Services License shall be regulated by the Contract of Funds Administration (bank) Services to the market, the model terms of which shall be established by the ERC, and their licenses.

### 3. Principles of the UPM Operation

- 3.1. The relationships between the UPM members shall be regulated by the UPM Contract, which is the only power purchase and sale contract for the domestic power market.
- 3.2. Parties to the UPM Contract shall be the companies engaged in the generation, transmission and distribution of electric energy.
- 3.3. The operation of the UPM shall be based on the following principles:
  - a) Ensuring the right to operate on priorly established equitable conditions for each market member, and the right to present and protect its interests;
  - b) Obligatory purchase and sale of the generated (imported) electric energy on the UPM;
  - c) Direct financial responsibility among the UPM members;
  - d) Regulated management of financial flows, transparency and controllability of the management of financial flows, in compliance with the UPM rules;
  - e) Equitable right of access to the UPM for all entities that meet the requirements set forth towards a new market member;

- f) All the contracts and Appendices thereto of the UPM shall become effective from the moment of their registration with the Energy Regulatory Commission of the Republic of Armenia;
- g) Delineation of responsibilities between the UPM members and the System Operator for the system planning and coordination operations;
- h) Delineation of the responsibilities of the electricity distribution licensee relevant to the forecasts for monthly peak load and electricity demand, as well as for the submitted demand orders;
- i) Export of electric power for sale only in cases when the domestic market is satisfied and the export does not jeopardize the interests of the domestic market consumers;
- j) Establishment and review of tariffs for UPM services by the ERC;
- k) Encouragement mechanisms established for the System Operator, the Contracting Center, the Settlement Center, the Funds Administrator and the High Voltage, in order to enhance the efficiency of their operation;
- l) Payments to the High Voltage Networks shall be performed in accordance with the established tariffs, taking into consideration the reliability indicators and the actual electricity transmission losses during the reportable period;
- m) The Generators shall sell electricity on the UPM at tariffs set by the Energy Regulatory Commission for each generator individually or at contractual rates that do not exceed such tariffs. The monthly payments for the ordered capacity for each individual Generator shall be determined in accordance with the level of actual availability of such Generator.
- n) The distribution licensee shall open a transit bank account at the Bank rendering Funds Administration services to the UPM, where all payments for consumed electric energy shall be collected. The transit account shall be managed by the UPM Funds Administrator in procedures established by the ERC.

#### 4. Functions of the UPM Members and Service Providers

4.1. The Generation Licensees of electric energy shall be responsible for carrying out the following functions:

- a) Generation and sale of electric energy (capacity) on the UPM;

- b) Ensuring coordinated operation of the generating capacities, in conformance with the procedures established by UPM Rules;
- c) Submission of the Table of Available Capacities for generation for the next year on monthly basis;
- d) Delivery of electric energy (capacity) in accordance with the demand orders and in compliance with the instructions of the System Operator, as well as provision of reserve capacity and additional system services, if so required by the contract and the license;
- e) Ensuring the required level of availability in compliance with the contract;
- f) Operation of the installations under their jurisdiction, planning and coordination of development and repair works in conformance with the UPM Rules;
- g) Carry out the System Operator's instructions in conformance with the UPM rules.

4.2. The Import Licensees of electric energy shall be responsible for carrying out the following functions:

- a) Import and sale of electric energy (capacity) on the UPM, in conformance with the procedures and rules set forth in the contract and the license;
- g) With regards to the import functions, mutual coordination of the dispatch issues between the RoA power system and the transmission systems of foreign countries.

4.3. Purchasers of electric energy (the electric distribution licensee, exporters) shall be responsible for carrying out the following functions:

- a) Purchase of electric energy (capacity) in established procedures, by forwarding demand orders to the UPM in advance; payment for the electricity (capacity) purchased and the UPM services provided;
- b) Submission of forecasts for electricity demand and load curve on an annual and monthly basis (exporters - in conformance with the export time period);
- c) Operation of the installations under its jurisdiction, planning and coordination of development and repair works in conformance with the UPM Rules.
- d) Carry out the instructions of the System Operator issued in conformance with the UPM Rules.

4.4. The "High Voltage Networks" shall be responsible for carrying out the following functions:

- a) Safe and reliable transmission of the electric energy (capacity) purchased and vended on the UPM via transmission networks under its jurisdiction;
- b) Operation of the installations under its jurisdiction, planning and coordination of development and repair works in conformance with the UPM Rules;
- c) Carry out the instructions of the System Operator released in conformance with the UPM Rules.

4.5. The System Operator shall be responsible for carrying out the following functions:

- a) Organization and management of the centralized dispatch process in conformance with the UPM rules, the System Operator License and the terms of the electricity import and export contracts;
- b) Collection and publication of data (established pursuant to UPM rules) about the operation of the UPM;
- c) Analysis of the impact of the proposed Power Purchase and Sale Agreements (including the contracts for the export, import, exchange and wheeling of electricity) on the system operation and the safety and reliability of power supply to the domestic market consumers;
- d) Submission of corresponding dispatch information to the Settlement Center and the Contracting Center;
- e) In procedures established by the ERC, conducting of availability tests of operating and reserve generating capacities and submission of all relevant information to the Settlement Center;
- f) Provision of the safety and reliability indicators set forth in the UPM rules in the electric power system planning, coordination and dispatch functions;
- g) Definition of the required volume of ancillary system services and ensuring their supply;
- h) Review the feasibility of the amounts of electric energy (capacity) set forth in the UPM purchase and sale contracts and (or) the appendices thereto, and ensuring their supply;
- i) Computation and selection of system-important management and protection device (pre-)settings in the power system, pursuant to the license provisions and the UPM rules, proposing them to the UPM members and overseeing their operation;
- j) In procedures established by the UPM rules, submission of proposals to the ERC and UPM relevant to the actions towards the expansion and development of the electric energy system, as well as the safety and reliability of the system.

4.6. The Contracting Center shall be responsible for carrying out the following functions:

- a) Rendering a contracting agent's services in conformance with the UPM rules and the UPM contract, signing of appendices establishing the indicators of purchase (sale) on domestic market by the UPM members, formulation of current changes with the UPM members, analysis and monitoring of their implementation and presentation of results to the market members;
- b) Execution of Import and Export agreements (including the agreements for the exchange of electric energy) as an agent on behalf of the UPM and upon the authorization of the UPM;
- c) Organization of the internal and external electricity market on a monthly basis, in cooperation with the System Operator and with consideration of the instructions thereof. For that purpose, the Contracting Center shall:
  - Receive from the Distribution licensee the data for monthly demand for electricity and capacity for the successive year, including the forecasts for monthly peak loads;
  - Adjust with the Generators (importers) the level of availability of the ordered capacities and the monthly operation schedules, in order to meet the requirement of the system, the distribution licensee and the exporters of electricity;
  - Obtain the necessary technical data and indicators from the UPM members and service providers;
  - Develop forecasts of the export volumes of electricity;
  - Forward for the ERC approval the forecasts for the proposed electricity (capacity) purchase and sale transactions for the successive year (by months);
  - In established procedures, forward for registration with the ERC the appendices of UPM contracts of the UPM members on quantity indicators of purchase and sale for each month of the successive year;
  - The Contracting Center shall not assume any proprietary obligations for carrying out the UPM contract appendices and import or export contracts.

4.7. The Settlement Center shall be responsible for carrying out the following functions:

- a) Carrying out the centralized UPM settlements in conformance with the UPM Rules;

- b) Operation and maintenance of the UPM automated system for purchased (sold) electricity metering;
- c) Development of the energy balance sheets for the system, inspection of the accuracy of the commercial data and information, restoration of the missing metering data;
- d) Computation of the actual losses and fluctuations from the planned values, submission of proposals to the UPM members, in conformance with the UPM contract, regarding the reimbursement of the damage due to the losses;
- e) Collection and processing of the data on technical and commercial metering of electricity generation and transmission, in order to develop semi-monthly settlements:
  - Based on the results of the half-month period, presenting preliminary invoices to each UPM member, based on the monthly calculations of forecasts of purchase and sale of electricity and rendered market services;
  - Based on the results of the month-end period, presenting final invoices to each UPM member, based on the actual monthly delivery (purchase) of electricity, advance payments and performed offsetting;
  - Presenting the final settlements to the UPM members, the UPM Bank and the ERC.

4.8. The Administrator of Financial Flows (the UPM Bank) shall be responsible for the implementation of the following functions:

- a) Organization and implementation of the UPM financial flows in a centralized manner in procedures established by the ERC;
- b) Servicing of the UPM members' transit accounts in conformance with the Funds Administration Procedures established by the ERC, ensuring transparency in all financial transactions of the UPM;

## 5. System Planning Process

Within the scope of their jurisdiction, the UPM members and the Service Providers, in procedures set forth in the UPM rules, shall develop and forward for the ERC approval the activities ensuring the safety and reliability of the electric energy system.